

REMARKS

Claims 1-23 remain present in this application.

The title, specification, and claims 1-23 have been amended. Reconsideration of the application, as amended, is respectfully requested.

Objection to the Title

The title stands objected to as not being descriptive. In view of the foregoing amendments, it is respectfully submitted that this objection has been addressed. Reconsideration and withdrawal of any objection to the title are respectfully requested.

Objection to the Drawings

The drawings stand objected to under 37 CFR 1.83(a), as not showing every feature specified in the claims. Accordingly, replacement sheets for Figs. 3(a)-(c) and 4(a)-(c) are attached hereto. It is noted that Fig. 3(a) corresponds to original Fig. 3. Figs. 3(b) and 3(c) respectively explain claims 2, 16, and 7. Fig. 4(a) corresponds to original Fig. 4. Figs. 4(b) and 4(c) respectively explain claims 10, 23 and 13. It is also noted that reference numbers 6 and 61 were added in the replacement drawings; however, no new matter should be entered since the rotor 6 and the impeller 61 are known to one of ordinary skill in the art.

AMENDMENTS TO THE DRAWINGS

Attached hereto are six (6) sheets of corrected drawings that comply with the provisions of 37 C.F.R. § 1.84. The corrected drawings incorporate the following drawing changes:

Fig. 3(a) corresponds to original Fig. 3;

Figs. 3(b) and 3(c) respectively explain claims 2, 16, and 7;

Fig. 4(a) corresponds to original Fig. 4; and

Figs. 4(b) and 4(c) respectively explain claims 10, 23 and 13.

It is respectfully requested that the corrected drawings be approved and made a part of the record of the above-identified application.

Accordingly, it is respectfully submitted that each member of the invention in the specification is properly referenced as described in the drawings and in the claims. The rotor 6 and the impeller 61 have been added to the drawings in order to match the claims, but as noted above, no new matter has been entered.

Rejection under 35 USC 112, First Paragraph

Claims 12 and 13 stand rejected under 35 USC 112, first paragraph. This rejection is respectfully traversed.

The specification does not support a repulsive magnetic bearing having axially aligned rings with opposite polar dispositions. Therefore, the Examiner assumed that the magnets of claim 12 attract each other, and the magnets of claim 13 repel each other. The following explanation is provided.

The Examiner's attention is drawn to amended Fig.4(a), in which the first magnetic ring 75, the second magnetic ring 76 and the third magnetic ring 77 are disposed in an axial alignment with each other in the lower magnetic portion. The first magnetic ring 75, the second magnetic ring 76 and the third magnetic ring 77 are disposed in an opposite orientation by their polar disposition, so that axially repulsive magnetic force is therefore generated between the first magnetic ring 75 and the third magnetic ring 77 to repulse the second magnetic ring 76.

For the same reason (referring to Fig. 4(c)) , if the first magnetic ring 75, the second magnetic ring 76, and the third magnetic ring 77 are disposed in an identical orientation by their polar disposition, the first magnetic ring 75 and the third magnetic ring 77 would generate attractive magnetic force to attract the second magnetic ring 76. For example, the three magnetic rings are disposed side by side and they all have a south-north orientation, or they all have a north-south orientation.

Accordingly, it is respectfully submitted that the specification would allow one of ordinary skill in the art to make and/or use the invention. Accordingly, reconsideration and withdrawal of the 35 USC 112, first paragraph rejection are respectfully requested.

Rejection under 35 USC 112, Second Paragraph

~~Claims 1-23 stand rejected under 35 USC 112, second paragraph.~~
This rejection is respectfully traversed.

In view of the foregoing amendments, it is respectfully submitted that the claims particularly point out and distinctly claim the subject matter of the instant invention. Accordingly, reconsideration and withdrawal of the 35 USC 112, second paragraph rejection are respectfully requested.

Rejection under 35 USC 102

Claims 1-3, 8, 9, 11, and 15-22 stand rejected under 35 USC 102(b) as being anticipated by ISHIZUKA, UK 2335242. This rejection is respectfully traversed.

Independent claim 1 recites a heat-dissipating device comprising a rotor having an impeller and a shaft, a base, a magnetic portion and a bearing portion. The magnetic portion is connected to the shaft and the base for generating axially and radially magnetic forces to position the shaft.

Amended claims 15 and 19 recite a heat-dissipating device comprising a rotor having an impeller and a shaft, a base, a magnetic portion and a bearing portion. The magnetic portion is connected to the shaft and the base for generating axially and radially magnetic forces at the same time.

Ishzuka discloses a rotor support comprising upper magnetic bearings, 3a and 3b, and lower magnetic bearings, 4a and 4b. The upper magnetic bearings and the lower magnetic bearings are symmetrically disposed at opposite ends of the shaft. The magnetic 3a is fixed to the rotor 1, and the magnetic 3b is fixed to the stator 2.

The magnets 3a and 3b are aligned axial to the shaft in an opposite polar disposition to have attractive force (see Fig. 1, for example). Alternatively, the magnets 3a and 3b are aligned radial to the shaft in an identical polar disposition to have

repulsive force (Fig.4). Otherwise, additional magnets 3aa and 3bb could be united to enhance the structure. The magnets 3a and 3aa are **fixed to the stator 2** while the magnets 3b and 3bb are **positioned on the rotor 1**. The magnets 3a and 3aa are respectively aligned with the magnets 3b and 3bb in an identical polar disposition to form repulsive forces radial to the shaft. Specifically, because the magnet 3a and 3aa are both fixed to the stator 2, the magnets 3a and 3aa are both positioned on the rotor 1, the magnet 3a and 3aa cannot generate any force axially to the shaft, and so do the magnets 3a and 3aa.

Ishizuka only teaches disposing magnets in radial direction or in axial direction, but does not teach that the magnets generate both axially and radially magnetic forces. For at least this reason, claims 1, 15 and 19 patently defines over the cited art.

Rejection under 35 USC 103

Claims 4-6 stand rejected under 35 USC 103 as being unpatentable over Ishizuka in view of NAKAMURA et al., JP 2000/078796. This rejection is respectfully traversed.

Claims 7 and 10 stand rejected under 35 USC 103 as being unpatentable over Ishizuka and Nakamura et al., in view of WYATT, U.S. Patent 4,471,331. This rejection is respectfully traversed.

Claims 12 and 23 stand rejected under 35 USC 103 as being unpatentable over Ishizuka in view of MENDELSON, U.S. Patent 2,582,788. This rejection is respectfully traversed.

Claim 13 stands rejected under 35 USC 103 as being unpatentable over Ishizuka in view of WEILBACH et al., U.S. Patent 5,019,738. This rejection is respectfully traversed.

Claim 14 stands rejected under 35 USC 103 as being unpatentable over Ishizuka and Nakamura et al., and further in view of MEHTA et al., U.S. Patent 5,883,449. This rejection is respectfully traversed.

Since Ishizuka does not disclose all the limitations of claims 1, 15 and 19, these claims patentably define over the cited art for at least the same reason.

In addition, the Examiner's attention is drawn to the fact that Wyatt's "Magnetically Supported Work Fixture" is not used for a heat-dissipating device. Besides, its magnetically working mode is for mitigating working strike, which clearly shows the difference from the present invention.

In view of the foregoing amendments, it is respectfully submitted that independents 1, 15 and 19, as well as their dependent claims, are neither taught nor suggested by the prior art utilized by the Examiner. Accordingly, reconsideration and withdrawal of the 35 USC 102 and 103 rejections are respectfully requested.

Favorable reconsideration and an early Notice of Allowance are earnestly solicited.

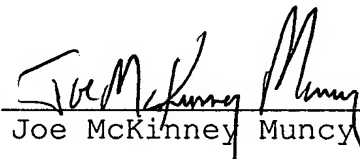
In the event that any outstanding matters remain in this application, the Examiner is invited to contact the undersigned at (703) 205-8000 in the Washington, D.C. area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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By



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Attachment: Replacement Drawing Sheets